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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,709	04/08/2005	Hans-Christoph Magel	R.305060	6972
2119	7590	12/15/2005	EXAMINER	
RONALD E. GREIGG GREIGG & GREIGG P.L.L.C. 1423 POWHATAN STREET, UNIT ONE ALEXANDRIA, VA 22314			MCGRAW, TREVOR EDWIN	
			ART UNIT	PAPER NUMBER
			3752	

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/530,709	MAGEL, HANS-CHRISTOPH	
	Examiner	Art Unit	
	Trevor McGraw	3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04/08/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In the aforementioned claim, it is not clear to the examiner as to the structural make-up of the invention. Claim 13, is written presenting the results of the structure of the invention in which, a structure of unclaimed or inferentially claimed sub-combinations. In claim 13, line 4 does not present a conjunction between equal joining parts.

2. Claim 13 recites the limitation "booster piston" in line 2. There is insufficient antecedent basis for this limitation in the claim.
3. Claim 13 recites the limitation "working chamber" in line 3. There is insufficient antecedent basis for this limitation in the claim.
4. Claim 13 recites the limitation "differential pressure chamber" in lines 4, 5 and 7. There is insufficient antecedent basis for this limitation in the claim.
5. Claim 13 recites the limitation "servo-valve" in line 5. There is insufficient antecedent basis for this limitation in the claim.
6. Claim 13 recites the limitation "control chamber" in line 6. There is insufficient antecedent basis for this limitation in the claim.

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7. Claim 13 recites the limitation "on/off valve " in line 6. There is insufficient antecedent basis for this limitation in the claim.

8. Claim 13 recites the limitation "hydraulic connection" in line 7. There is insufficient antecedent basis for this limitation in the claim.

9. Claim 13 recites the limitation "first return" in line 8. There is insufficient antecedent basis for this limitation in the claim.

10. Claim 13 is further rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In line 8 and line 9, it is unclear to the Examiner as to how the limitation "on the low pressure side" relates to the structure of the invention.

Claim Objections

11. Claims 14-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Allowable Subject Matter

Claim 13-24 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach a fuel injector that comprises a servo-valve that when actuated provides a sealing means for opening and closing a fuel return line and also provides a second sealing means for opening

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and closing a hydraulic chamber with either seal embodied in either a flat, conical or slider form.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Magel (6,892,703), Magel (6,889,659), Maher et al. (6,453,875), Boecking (6,871,636), Baranowski et al. (6,789,743), Magel (2004/0231645), Magel (6,810,856), Maher et al. (6,776,138), Kropp et al. (6,752,325), Huber (5,819,710), Gurich et al. (6,811,103).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trevor McGraw whose telephone number is (571) 272-7375. The examiner can normally be reached on Monday-Friday (2nd & 4th Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on (571) 272-4919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Trevor McGraw
Art Unit 3752

TEM



David A. Scherbel
Supervisory Patent Examiner
Group 3700